

# United States Department of Agriculture Forest Service Aviation Safety Alert

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**Subject:** AS 350 Series Collective locking mechanism

**Area of Concern:** Aviation Operations

**Distribution:** USFS Aviation Operations

**Discussion:** A recent accident identified a potential problem with the Collective pitch lever locking mechanism. Preliminary indications are that the hold-down stud, (Part # 350A-27 3455-20) was worn significantly on the top portion of it and subsequently the locking device, (Part # 350A273107 26) disengaged while the pilot was performing the cyclic hydraulic accumulator test, which imparts feedback forces to the collective. The helicopter became airborne with little or no hydraulic assist to the flight controls. The pilot was unable to maintain stable flight and the aircraft rotor system impacted the ground. The aircraft came to rest on it's right side approximately 50' from where it started.

**Recommendation:**

1. Advise all AS 350 Series helicopter Pilots and Operators of the potential for the collective pitch lever lock to become unlocked during the hydraulic test procedure due to cyclic feedback to the collective.
2. All contractors will assure that the collective pitch lock attached to the end of the collective is functioning normally.

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